

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
7 October 2004 (07.10.2004)

PCT

(10) International Publication Number
WO 2004/085796 A1

- (51) International Patent Classification⁷: **E21B 47/18**
- (21) International Application Number:
PCT/GB2004/001281
- (22) International Filing Date: 24 March 2004 (24.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0306929.1 26 March 2003 (26.03.2003) GB

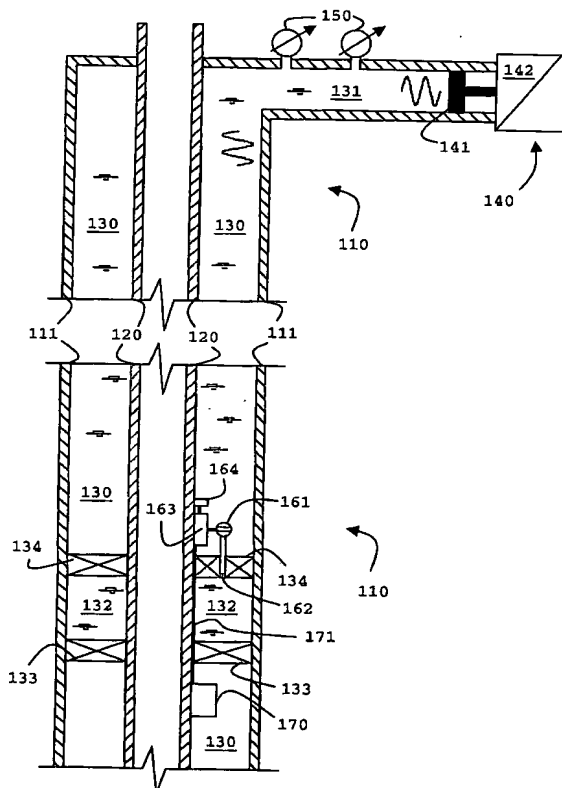
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(54) Title: BOREHOLE TELEMETRY SYSTEM



(57) Abstract: An acoustic telemetry apparatus and method for communicating encoded digital data from a down-hole location through a borehole to the surface is described including an acoustic channel terminated at a down-hole end by a reflecting terminal (133, 134), an acoustic wave generator (140) located at the surface and providing an acoustic wave carrier signal through said acoustic channel, a modulator (162, 163) located down-hole to modulate amplitude and/or phase of said carrier wave in response to an encoded digital signal and one or more sensors (150) located at the surface adapted to detect amplitude and/or phase related information of acoustic waves traveling within said acoustic channel to determine the encoded digital data.



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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- with amended claims

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.